

REMARKS/ARGUMENTS

Claims 6-12 are pending in this application. No claims are amended, canceled or added by the present amendment.

In the outstanding Office Action dated December 24, 2008, Claims 6 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Publication 2001/0019441 to Kogure et al. (herein “Kogure”) in view of U.S. Patent No. 5,844,445 to Takeyari; and Claims 7-9 were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Initially, Applicants and Applicants’ representative gratefully acknowledge the indication of allowable subject matter in Claims 7-9 and the courtesy of an interview with Examiner Tran on February 11, 2009. During the interview, rejections in the Office Action and differences between the references in the Office Action and the claimed invention were discussed.

Applicants respectfully traverse the rejection of Claims 6 and 10 under 35 U.S.C. § 103(a) as unpatentable over Kogure and Takeyari.

Claim 6 is directed to an optical receiver that includes, in part, a pre-amplifying unit that performs voltage conversion and amplification of an output of a light-receiving element that receives a light signal and converts the received light signal into a current signal, and a regenerating unit including a discriminating circuit that receives an output signal of the pre-amplifying unit as an input signal and performs a signal discrimination of the input signal based on a threshold generated based on the input signal. The pre-amplifying unit includes a first average detecting circuit that detects an average of output signals of the pre-amplifying unit, and controls an amplification gain based on a result of comparison between an output of the first average detecting circuit and a predetermined reference voltage. The regenerating unit further includes a second average detecting circuit that detects an average of input

signals to the discriminating circuit. The discriminating circuit receives an output of the second average detecting circuit as the threshold for signal discrimination of the input signal.

Applicants respectfully submit that Kogure and Takeyari fail to teach or suggest each of the features of Claim 6. Further, Applicants respectfully traverse the assertion in the Office Action that Kogure Figs. 3, 5, and 11, and paragraphs [0073] to [0076] disclose the limitations recited in independent Claims 6 and 10 except for the limitation, “wherein the pre-amplifying unit includes a first average detecting circuit that detects an average of output signals of the pre-amplifying unit, and controls an amplification gain based on a result of comparison between an output of the first average detecting circuit and a predetermined reference voltage.”<sup>1</sup> Further, Applicants respectfully traverse the assertion in the Office Action that “it would have been obvious to an artisan to replace the Pre-amplifier 2 of Kogure with the Pre-amplifier taught by Takeyari. One of ordinary skill in the art would have been motivated to do that in order for the Pre-amplifier operates [sic] as an ordinary high transfer impedance low noise Pre-amplifier, (col. 5, lines 60-62 of Takeyari).”<sup>2</sup>

In other words, the Office Action appears to suggest that the pre-amplifier 2 of Kogure corresponds to the “pre-amplifying unit” recited in Claim 6, appears to suggest that the circuit after the pre-amplifier 2 corresponds to the claimed “regenerating unit” (although the Office Action does not state which structural elements after the pre-amplifier 2 specifically correspond to the “regenerating unit”), and appears to suggest that the discriminator 9 corresponds to the claimed “discriminating circuit.”

However, Applicants respectfully submit that the Office Action fails to point out or show that Kogure teaches or suggests “the regenerating unit further includes a second average detecting circuit that detects an average of input signals to the discriminating circuit, and the discriminating circuit receives an output of the second average detecting circuit as the

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<sup>1</sup> Office Action at paragraph spanning pages 2-3.

<sup>2</sup> Office Action at page 3, last paragraph.

threshold for signal discrimination of the input signal,” as recited by Claim 6, and Applicants respectfully submit that those features are neither taught nor suggested by Kogure.

Kogure Fig. 3, shows a configuration of a clock regeneration circuit applicable to an optical receiver, Kogure Figs. 5 and 11, show different examples of detailed configurations of a bit rate detector 10 and a clock selection circuit 11 in Fig. 3.<sup>3</sup>

Applicants respectfully traverse the implication in the Office Action that Kogure’s average detection circuit 103, shown in Kogure Fig. 11 and paragraphs [0075] to [0076], corresponds to the claimed “second average detecting circuit.” According to Kogure Fig. 11, the average detecting circuit 103 of Kogure is not a circuit “that detects an average of input signals to” the discriminator 9 (presumably alleged to correspond to the claimed “discriminating circuit”). Further, Applicants respectfully submit that Kogure fails to teach that the discriminator 9 “receives an output of” the average detecting circuit 103 (the presumably alleged “second average detecting circuit”) “as the threshold for signal discrimination of the input signal.” Accordingly, Applicants respectfully submit that Kogure and Takeyari, whether taken individually or in combination, fail to teach or suggest all of the limitations recited in Claim 6.

Claim 10 is directed to a discrimination-threshold generating method for an optical receiver. The method includes, in part, controlling an amplification gain of a pre-amplifying unit based on a result of comparison between a first average detection output obtained by detecting an average of output signals of the pre-amplifying unit and a predetermined reference voltage, and outputting a second average detection output obtained by detecting an average of input signals to the discriminating circuit to the discriminating circuit as the threshold for performing signal discrimination of the input signal.

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<sup>3</sup> Kogure at paragraphs [0028], [0030], [0036], [0039], [0054], and [0073].

For reasons similar to those discussed above, Applicants respectfully submit that Kogure and Takeyari also fail to teach or suggest the features of Claim 10.

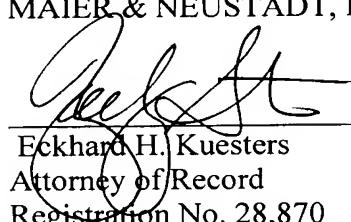
Therefore, Applicants respectfully request the rejection of Claims 6 and 10 under 35 U.S.C. § 103(a) be withdrawn.

Accordingly, Applicants respectfully submit that independent Claims 6 and 10, and claims depending therefrom, are allowable.

Consequently, in light of the above discussion, this application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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